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We claim:

- A process for preparing graft copolymers of polyvinyl esters
 by polymerization of
 - a) at least one vinyl ester of aliphatic C_1 - C_{24} -carboxylic acids in the presence of
- b) polyethers which are solid at room temperature and have the general formula I

$$R^{1} \leftarrow (0 + (R^{2} - 0)_{u} + (R^{3} - 0)_{v} + (R^{4} - 0)_{w} \leftarrow (R^{5} - 0)_{x} + (R^{6} - 0)_{y} + (R^{7} - 0)_{z} \rightarrow R^{8})_{n}$$

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in which the variables have the following meaning, independently of one another:

20 R¹ hydrogen, C_1-C_{24} -alkyl, R^9-C (=0)-, R^9-NH-C (=0)-, polyalcohol residue;

 R^8 hydrogen, $C_1-C_{24}-alkyl$, $R^9-C(=0)-$, $R^9-NH-C(=0)-$;

 R^2 to R^7

$$-(CH_2)_2-$$
, $-(CH_2)_3-$, $-(CH_2)_4-$, $-CH_2-CH(CH_3)-$, $-CH_2-CH(CH_2-CH_3)-$, $-CH_2-CHOR^{10}-CH_2-$;

30 $R^9 C_1-C_{24}-alkyl;$

 R^{10} hydrogen, C_1-C_{24} -alkyl, R^9-C (=0)-;

35 A -C(=0)-O-, -C(=0)-B-C(=0)-O-, -C(=0)-NH-B-NH-C(=0)-O-;

 $B = -(CH_2)_t$, arylene, optionally substituted;

n 1 to 8;

s 0 to 500;

t 1 to 12;

45 u 1 to 5000;

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v 0 to 5000;

w 0 to 5000;

5 \times 1 to 5000;

y 0 to 5000;

z 0 to 5000

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c) and, where appropriate, at least one other monomer

using a free-radical initiator system, wherein liquid polyalkylene glycol is used as solvent for the free-radical initiator system.

 A process as claimed in claim 1, wherein the solution of the free-radical initiator system is added continuously throughout the polymerization reaction time.

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- 3. A process as claimed in either of claims 1 and 2, wherein liquid polyethylene glycol is used as solvent for the free-radical initiator at room temperature.
- 25 4. The use of the polymers prepared by a process as claimed in any of claims 1 to 3 as coating agents, binders and/or film-forming excipients for pharmaceutical dosage forms.
- 5. The use of the polymers prepared by a process as claimed in any of claims 1 to 3 as additives to cosmetic, hygienic and/or dermatological preparations.
- 6. A cosmetic, dermatological, hygienic or pharmaceutial dosage form comprising at least one of the polymers prepared by a process as claimed in claims 1 to 3 in addition to conventional excipients.
 - 7. Graft copolymers of polyvinyl esters obtainable by polymerization of

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- a) at least one vinyl ester of aliphatic $C_1\text{-}C_{24}\text{-}\text{carboxylic}$ acids in the presence of
- b) polyethers which are solid at room temperature and have45 the general formula I

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$$R^{1}$$
 $\left(-0.(R^{2}-0)_{u} + (R^{3}-0)_{v} + (R^{4}-0)_{w} + (R^{5}-0)_{x} + (R^{6}-0)_{y} + (R^{7}-0)_{z} \right) = R^{8}$

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in which the variables have the following meaning, independently of one another:

10 R¹ hydrogen, C_1-C_{24} -alkyl; R^9-C (=0)-, R^9-NH-C (=0)-, polyalcohol residue;

 R^8 hydrogen, C_1-C_{24} -alkyl, $R^9-C(=0)-$, $R^9-NH-C(=0)-$;

 \mathbb{R}^2 to \mathbb{R}^7

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$$-(CH_2)_2-$$
, $-(CH_2)_3-$, $-(CH_2)_4-$, $-CH_2-CH(CH_3)-$, $-CH_2-CH(CH_2-CH_3)-$, $-CH_2-CHOR^{10}-CH_2-$;

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$$R^9$$
 C_1-C_{24} -alkyl;

 R^{10} hydrogen, C_1-C_{24} -alkyl, R^9-C (=0)-;

A -C(=0)-O-, -C(=0)-B-C(=0)-O-, -C(=0)-NH-B-NH-C(=0)-O-;

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B $-(CH_2)_t$ -, arylene, optionally substituted;

n 1 to 8;

30

s 0 to 500;

t 1 to 12;

35

u 1 to 5000;

v 0 to 5000;

TAT

0 to 5000;

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x 1 to 5000;

У

0 to 5000;

45

z 0 to 5000

c) and, where appropriate, at least one other monomer

using a free-radical initiator system, wherein liquid polyalkylene glycol is used as solvent for the free-radical initiator system.

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